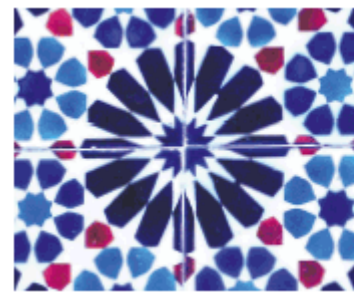


# PEDIATRIC PATIENT BLOOD MANAGEMENT PROGRAM IN SCOLIOSIS SURGERY: NET CLINICAL BENEFITS



R. Pardal<sup>1</sup>; F. Rincon<sup>1</sup>; S. Gouveia<sup>1</sup>; B.Ferro<sup>1</sup>; F. Bargado<sup>1</sup>; M.M. Campos<sup>1</sup>; S.H.Ramos<sup>2</sup>; D. E.Santo<sup>1</sup>  
1.Immunohemotherapy, Centro Hospitalar Lisboa Central, Lisbon (Portugal)  
2.Anesthesiology, Centro Hospitalar Lisboa Central, Lisbon (Portugal)

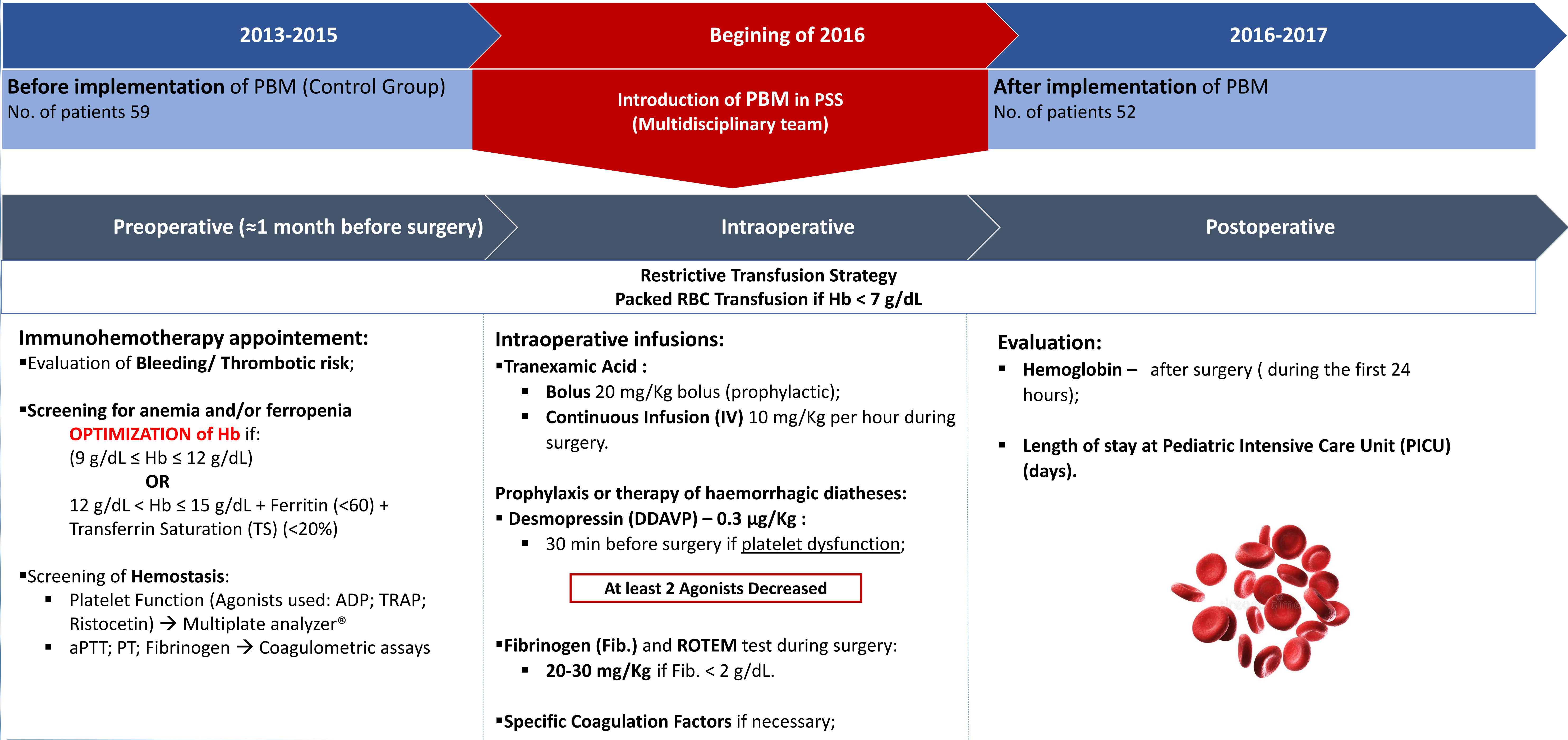
## INTRODUCTION

- Scoliosis affects 2-4% of children;
- The aim of Pediatric Scoliosis Surgery (PSS) is to avoid worsening of respiratory and cardiac function;
- This surgery is associated with high rates of packed red blood cells (RBC) transfusion (bleeding risk is greater in neuromuscular etiology);
- Patient Blood Management (PBM) programs have been introduced to minimize the use of blood transfusion;
- In January 2016, at our institution, a Pediatric PBM program was adopted in pediatric patients undergoing PSS.

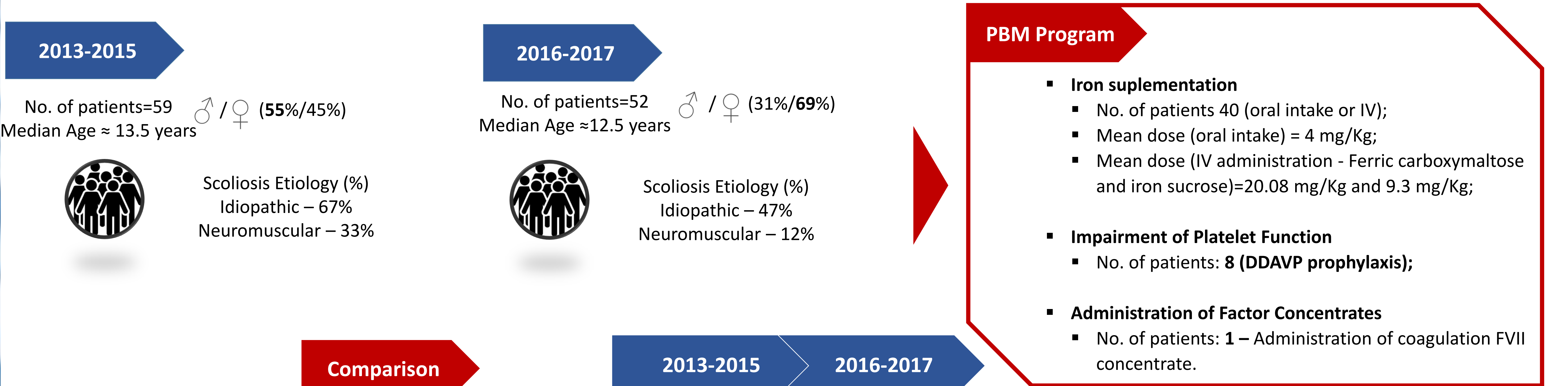


AIM of our study: Evaluate the efficiency of our PBM program.

## METHODS



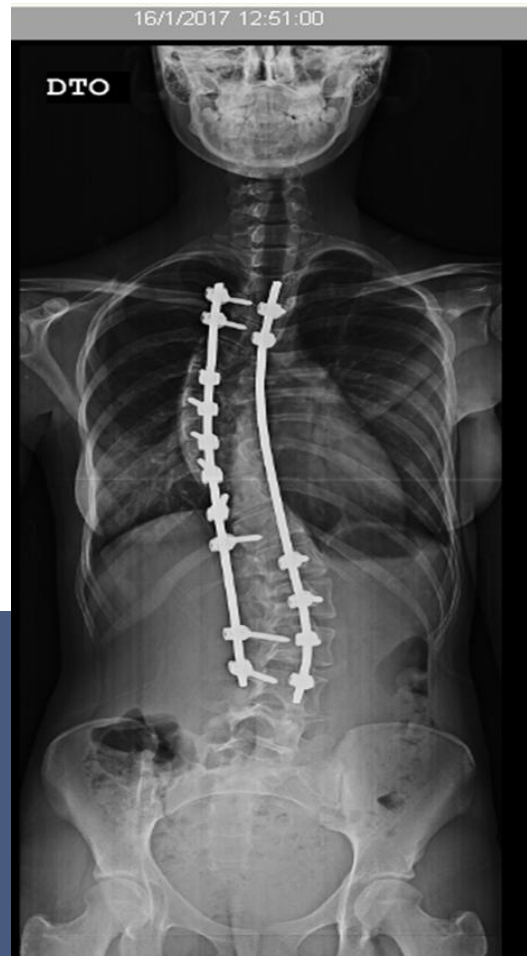
## RESULTS



Comparison	2013-2015	2016-2017
Preoperative Hb (median g/dL)	13.2	13.4
Postoperative Hb (median g/dL)	9.3	10.0
Number of packed RBCs transfused (median)	2	0
Length of Pediatric Intensive Care Unit admission (median days)	3.06	1.85

## CONCLUSIONS

- The median of packed RBCs consumed in the perioperative period decreased from two (2013-2015) to zero (2016-2017);
- The length of stay at PICU followed the same pattern, prior to PBM the patients had a median stay of 3 days at PICU, after PBM implementation they only spend 1.85 days at the unit;
- The implementation of the PBM program allowed for a substantial decrease of packed RBC transfusion and length of PICU admission.



**Clinical Case**  
Female Patient; 18 years old  
Idiopathic Scoliosis  
Submitted to SS in 2016

REFERENCES: (1) Ohrt-Nissen, S., Bukhari, N., Dragsted, C., Gehrchen, M., Johansson, P. I., Dirks, J., Dahl, B. (July 2017). Blood transfusion in the surgical treatment of adolescent idiopathic scoliosis-a single-center experience of patient blood management in 210 cases. Transfusion AABB, 1808-1817.  
(2) Pérez Ferrer, A., Gredilla-Díaz, E., Vicente-Sánchez, J. d., Sánchez Pérez Grueso, F., & Gilsanz-Rodríguez, F. (2015). Implementation of a patient blood management programme in pediatric scoliosis surgery. Revista Española de Anestesiología y Reanimación, 69-77.